(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOL

ATION TREATY (PCT)





## 

(43) International Publication Date 10 July 2003 (10.07.2003)

**PCT** 

(10) International Publication Number WO 03/055408 A1

- (51) International Patent Classification<sup>7</sup>: A61 A61K 6/06
- A61C 13/00,
- (21) International Application Number: PCT/SE02/02440
- (22) International Filing Date:

23 December 2002 (23.12.2002)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0200007-3

3 January 2002 (03.01.2002) SE

- (71) Applicant (for all designated States except US): NOBEL BIOCARE AB (PUBL) [SE/SE]; Box 5190, S-402 26 Göteborg (SE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): SALOMONSON, Jonas [SE/SE]; Åkervägen 12, S-141 44 Huddinge (SE). YANEZ, Joseph [US/US]; 1620 Fuller St., Apt. 415, Washington, DC 20009 (US).

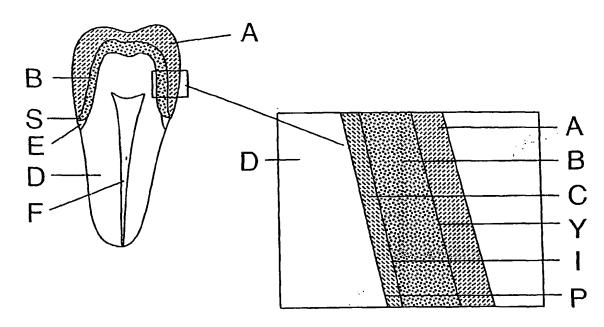
- (74) Agent: OLSSON, Gunnar; Nobel Biocare AB (publ), Box 5190, S-402 26 Göteborg (SE).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

[Continued on next page]

(54) Title: METHOD FOR MAKING CERAMIC ARTIFICIAL DENTAL BRIDGES



(57) Abstract: The present invention relates to a method for making artificial tooth bridges consisting of a ceramic densely sintered high strength individual core veneered with Porcelain using powder metallurgical methods. According to the method the individual densely sintered bridge parts are joined together to a bridge core by a particle reinforced glass. Since only the glass material wets the surface of the densely sintered parts, the glass is the binding material that holds the core together and the particles function to only increase the strength (i.e. K<sub>c</sub> value) of the bulk glass material.

055408 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Internation plication No. PCT/SE 02/02440

## A. CLASSIFICATION OF SUBJECT MATTER IPC7: A61C 13/00, A61K 6/06 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC7: A61C, A61K Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched SE,DK,FI,NO classes as above Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category\* WO 9913795 A1 (SANDVIK AB), 25 March 1999 1-8 Α (25.03.99)WO 0170128 A1 (KLAPS), 27 Sept 2001 (27.09.01) 1-8 A See patent family annex. Further documents are listed in the continuation of Box C. later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance earlier application or patent but published on or after the international "E" "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document referring to an oral disclosure, use, exhibition or other document published prior to the international filing date but later than "&" document member of the same patent family the priority date claimed Date of mailing of the international search report Date of the actual completion of the international search **2 5 -03- 2003** 24 March 2003 Authorized officer Name and mailing address of the ISA/ Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Jack Hedlund/Els

Telephone No. +46 8 782 25 00

## INTERNATIONAL RCH REPORT Information on pater mily members

30/12/02

Internation plication No.
PCT/SE 02/02440

Patent document cited in search report			Publication date	Patent family member(s)		Publication date
МO	9913795	A1	25/03/99	AU	727600 B	14/12/00
				AU	9193998 A	05/04/99
				BR	9812206 A	18/07/00
				CA	2302499 A	25/03/99
				EP	1011512 A	28/06/00
				JP	2001516614 T	02/10/01
				NO	20001199 A	08/03/00
				SE	507543 C	22/06/98
				SE	9703311 A	22/06/98
				US	6238601 B	29/05/01
WO	0170128	A1	27/09/01	AU	4409201 A	03/10/01
				EP	1265549 A	18/12/02